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ABSTRACT

This study was conducted to determine if there was a significant difference in the rate of success between initially matriculated and provisionally accepted students in the Master of Business Administration program at Dowling College (Oakdale, New York). Provisionally accepted students have met all admissions criteria except that they have scored less than 950, a score calculated by adding the Graduate Management Admission Test score to 200 times the undergraduate cumulative grade point average. An investigation into graduates' scores and grades revealed that a total of 87 were initially matriculated and 33 provisionally accepted. Statistical analyses, however, revealed no obviously significant difference between the grade point averages of the two groups; hence it was felt that evidence from the dropout rates would be needed to substantiate certain recommendations. When the transcript files were examined, it was found that 274 provisionally accepted students and 114 initially matriculated students had dropped out of the program, facts that added weight to the recommendations made. Recommendations included: procedures for maintaining dropout data need to be improved; the admissions score criterion should be more stringent and carefully adhered to; retention procedures should be studied and the best implemented; and admissions criteria and procedures in general should be studied, and admission decisions should be made by the admissions committee of the Master of Business Administration program. A 24-item bibliography is appended, as well as a 15-item reference list. (KM)

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# A COMPARISON OF THE RATE OF SUCCESS BETWEEN PROVISIONALLY ACCEPTED AND INITIALLY MATRICULATED STUDENTS IN THE DOWLING MASTER OF BUSINESS ADMINISTRATION PROGRAM

APPLIED EDUCATIONAL RESEARCH & EVALUATION SEMINAR

by

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PHILADELPHIA CLUSTER

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ABSTRACT

A COMPARISON OF THE RATE OF SUCCESS BETWEEN PROVISIONALLY ACCEPTED AND INITIALLY MATRICULATED STUDENTS IN THE DOWLING MASTER OF BUSINESS ADMINISTRATION PROGRAM

James F. Newman, M.B.A.

There has been an increase in the number of provisionally accepted students in the Dowling Master of Business Administration program. Provisionally accepted students have met all other admissions criteria but have scored less than 950, an arbitrary score used by many colleges and universities, calculated by adding the Graduate Management Admission Test score to two hundred times the undergraduate cumulative grade point average.

Concern was expressed that the success rate, as measured by the final grade point average (GPA) of these provisionally accepted students might be significantly lower with some not being able to complete the program and that the program's reputation might suffer if standards were lowered as a result of this acceptance device.

The purpose of this study was to determine if there was a significant difference in the rate of success between initially matriculated and provisionally accepted students. The procedure to determine this entailed listing each graduate's undergraduate grade point average, Graduate Management Admission Test score, total admissions

score and final grade point average. From this listing of the 120 graduates' total scores, the admissions status was determined - 87 matriculated and 33 provisionally accepted and eventually matriculated. Each group's final grade point mean and standard deviation were calculated. An Independent t-test at a significance level of .05 with 118 degrees of freedom was used to determine if there was a significant difference between the two groups' final mean grade point averages. A critical t value of 1.96 and a calculated t value of 3.44 was determined.

Since the calculated t value exceeded the critical t value, the null hypothesis was rejected and the alternative hypothesis, that there was a significant difference in the grade point averages between initially matriculated and provisionally accepted students, was accepted. The grade point averages of the provisionally accepted students were statistically sufficiently lower than those of the initially matriculated students. However, since the mean for the provisionally accepted student group was 3.35, it was felt that this was not an obviously inferior grade point average and that evidence from the dropout rates would be needed to substantiate certain recommendations. When the transcript files were examined, it was determined that 274 provisionally accepted students and 114 initially matriculated students dropped out of the program. These facts add weight to the recommendations that were made.

This information provided the data needed to make recommendations. The major recommendations included:

1. Improve procedures for the maintenance and retention of files of students who drop out.

2. The admissions criteria, and particularly the admissions score criterion, should be more stringent and most carefully adhered to.

3. The Admissions Committee should examine the admissions scores and the meeting of other admissions criteria more carefully to determine the probability of successful program completion based upon the results of this study.

4. The faculty and the administration should engage in a discussion regarding the advisability of keeping the cutoff score for provisionally accepted students at 900 in light of the results of this study.

5. A study should be made of possible retention procedures. The best should be implemented.

6. Admissions decisions must be made by the Master of Business Administration Program Admissions Committee and not by the Admissions Department personnel.

7. This study should be replicated in the future to determine if the trend has continued. If so, further recommendations should be made.

8. Discussions should be undertaken regarding the feasibility of eliminating the Graduate Management Admission Test as a criterion for admission. Emphasis can be on the undergraduate experience and grade point average and/or work experience.

9. Improper admissions decisions must not be made based upon the need and/or desire to make the program grow and be financially rewarding.

10. The program's quality must be maintained and upgraded where necessary as quickly as possible.

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# INTRODUCTION

Dowling College was founded in 1959 as a branch of Adelphi University. Innovation and experimentation were to be the rule rather than the exception. Dowling is now a private liberal arts college with the addition of an education program. Programs leading to the degree of Bachelor of Business Administration in Management and Accounting were added in 1971, to the degree of Bachelor of Business Administration in Finance and Marketing and to the degree of Bachelor of Science in Computer Information Systems in 1986. The Master of Business Administration (MBA) program, an integrated developmental graduate program which provides an educational foundation for responsible business leadership and is geared to the needs of business, was authorized in 1976 to help meet the need for effective professional managers.

Entrance to the Master of Business Administration program is based on certain criteria. One numerical criterion is that the students must have attained a score of 950, calculated by adding the students' Graduate Management Admission Test scores to two hundred times their undergraduate cumulative grade point averages. Students with scores of 950 or better and meeting all other admissions criteria are matriculated immediately. Other students, who meet all other admissions criteria but attain scores between 900 and 950 may be provisionally

accepted. Provisional acceptance allows students to enter the program and take nine credits of course work before another evaluation is made by a faculty committee. In order to remain in the program and to be matriculated, these nine credits of course work must be completed with an average of "B" or better.

Some faculty noted that the number of provisionally accepted students in the program was increasing. They expressed concern about this increase as it was felt that perhaps these provisionally accepted students would not be able to successfully complete the program. Faculty members were also concerned about the seemingly high dropout rate in the program. Concern was also expressed that the program standards might be adversely affected by the increased enrollment of provisionally accepted students. No study of this potential problem had ever been made. Therefore it was decided that a study of the possible difference in the rate of success between the Master of Business Administration students who were initially matriculated and those who were provisionally accepted and eventually matriculated be undertaken. This was a most appropriate subject for the Nova seminar in Applied Educational Research and Evaluation since it is a topic that can be researched and statistical measures can be utilized to determine results which will aid in the making of recommendations for the future.

Background and Significance

The continuing and future success of the Master of Business Adminstration program at Dowling and of its students depends on the application of proper admission standards in conjunction with the proper level of instruction and rigor. Dowling has many reasons to maintain the program's quality. Should the quality be lowered or the acceptance qualifications and standards of admission be lowered based upon the educational level of its applicants, the program would definitely suffer and Dowling itself would suffer. The Master of Business Administration program adds incremental income with a very low incremental increase in expenses and thus is a most beneficial program in the financial life of Dowling. The loss of or decrease in this incremental income would be most detrimental to Dowling and to its future existence.

It had to be determined, therefore, if the increased acceptance of provisionally accepted students based upon an arbitrary score of 950 was or could be detrimental to the program and to Dowling itself. The purpose of this study was to determine if the acceptance of less qualified, as measured by the Graduate Management Admission Test scores and undergraduate cumulative grade point averages, students resulted in lower cumulative grade point averages upon graduation than those of more highly qualified students.

Review of Related Literature

Over the past decade, the Master of Business Administration degree has grown in both popularity and impact (Kurst, 1982.9). The Master of Business Administration degree has become a highly desired degree as employers have recognized that it can contribute to professional performance. Individual talents, individual qualities, motivation, knowledge, ability, skills and work habits are all important to this professional performance. Kurst (1981:11) stated that

> Since the combination of these personal qualities and academic skills is so important to a manager's success, admissions and selections are highly subjective processes that demand careful evaluation.

Kurst (1981:19) further stated that

> The admissions process is not an exact science; admission hinges on a combination of objective and subjective criteria such as a student's undergraduate record and related indicators of past academic performance, a student's score on the GMAT, accomplishments or experience at work, in the military and/or community, the quality of the application and recommendations, and such intangibles as motivation, maturity and leadership ability. No one criteria, standing alone, is likely to be the sole determinant of candidacy.

The student's undergraduate record is also a major consideration. This includes such factors as grades, grade trends, and rank in class - considered in light of the quality and competitiveness of the undergraduate program (Kurst, 1981:19). At Dowling, undergraduate cumulative grade point averages, background, Graduate

Management Admission Test scores, recommendations, etc. are reviewed very carefully by an admissions committee. Most business schools, however, tend to rely on two criteria - undergraduate grade point averages and Graduate Management Admission Test scores. A school that accepts students with poor undergraduate records and low scores on the Graduate Management Admission Test isn't likely to be accredited by the American Assembly of Collegiate Schools of Business (AACSB) (Byrne, 1986:104). One reason for lower acceptance rates is that the qualifications of the "pool" of applicants from which to choose must be lower (Wooten, et al, 1984:25). Kurst (1981:22 ) suggests that once the admissions officers are satisfied that the applicants' academic qualifications are sufficient, they can concentrate on whether the candidates have the essential motivation and professional potential to be a successful Master of Business Administration candidate. Such is the case at Dowling College.

One major measure is the Graduate Management Admission Test score which is not a test of knowledge in specific subjects but rather a test of certain skills and abilities found to be important in graduate management studies. The Graduate Management Admission Test yields three scores - verbal, quantitative, and total. Total scores can range from 200 to 800, with about two-thirds falling between 360 and 570 (Kurst, 1981:19). The 1967-1975 trend showed an average of 1 1/2% of a standard

deviation per year decline over the eight year period (Waters, 1981:9). Dowling is listed as having a range of students' Graduate Management Admission Test scores of 400-600. Competitive schools in the area are listed as being in the range of 410-503 (New York Institute of Technology) and 350-450 (C.W. Post L.I.U.) (Kurst, 1981: 53-55). Sable (1985:28), in a survey on Master of Business Administration programs, found that of twenty-four respondents, fourteen required a minimum Graduate Management Admission Test score in the range of 450-499. Only three required a score of over 500.

The Graduate Management Admissions Council's Official Guide (Kurst, 1982:191) states that the primary asset of the Graduate Management Admission Test is that it provides a common measure, administered under standard conditions, with known reliability, validity, and other psychometric qualities, for evaluating the academic skills of many individuals. Kurst (1982:192) further states that a person's Graduate Management Admission Test score will tell how the person performed on a test designed to measure general verbal and quantitative abilities that are associated with success in the first year of study at graduate schools of management and that have been developed over a long period of time. The use of arbitrary cutoff scores (below which no applicant will be considered for admission) is strongly discouraged. Distinctions based on score differences not substantial

enough to be reliable should be avoided. Cutoff scores should be used only if there is clear empirical evidence that a large proportion of the applicants scoring below the cutoff scores have substantial difficulty doing satisfactory graduate work (Kurst, 1982:191). Yet Baker (1977:6) found that students who drop out tend to have lower than average test composites on entrance exams.

Some schools, including Harvard, have dropped the Graduate Management Admission Test as a criterion for admissions (Day, 1985:B6). Day (1985:B6) stated that Harvard felt that the Graduate Management Admission Test was not a good measure of traits such as leadership ability or ingenuity. It is these traits that Master of Business Administration degree programs want to develop. Sable (1985:27) found that of fifty-six schools surveyed, only thirty (54%) required the Graduate Management Admission Test. The Graduate Management Admission Test was developed to determine the ability to do Master of Business Administration level studies. Some feel that the test does not adequately do so.

Tests, as predictors of criterion measures, do have value in selection. Vincent's (1984:21) studies have found that the Graduate Management Admission Test score is the most significant single predictor of success in a Master of Business Administration program. Without any test scores, selection might be a very haphazard, subjective process which could be unfair to many

applicants. The problem is in the implicit substitution of the test score for the real thing that one wants to measure (Johnson, 1979:5). However, each applicant to a program has the opportunity to score high on a test and/or maintain a high undergraduate grade point average. The Graduate Management Admission Test is designed to be used to select candidates who are most likely to succeed in an academic program such as a Master of Business Administration program.

There has been a disturbing declining trend in the Graduate Management Admission Test scores over a period of time. Changes in the societal, educational, and occupational environments have all been examined, as have the tests themselves. With regard to the tests themselves, it has been shown that they tend to be constructed, scaled and equated using the most sophisticated techniques available, and that they are as valid as they ever were. It is unlikely that the tests are the cause of the decline (Goldman, 1980:3). Goldman (1980:4) hypothesized that performance on college and university admissions tests such as the Graduate Management Admission Test is a joint function of the students' ability and motivation. Recent studies have also shown that minority and poor students perform much closer to white students once admitted to a professional school than they do on tests required for admissions (Haro, 1978:9).

One obvious possibility is that colleges and universities are going to be faced with some hard choices in the future concerning their admissions standards. The moderately selective colleges and universities especially will find the competition for good scholars getting more intense because of the anticipated smaller pool of applicants. In general, these colleges and universities may be forced to lower their standards of admission (and/or possibly water down their instruction as well), or maintain their standards and risk going out of existence due to declining enrollment. A third possibility may be to accept more under-qualified individuals, but maintain high performance standards by providing intensive remediation to incoming students. This may, unfortunately, result in a higher dropout rate (Goldman, 1980:6). This dilemma has been faced by Dowling College and other colleges and universities offering Master of Business Administration programs and will no doubt continue to be faced in the future.

Goldman (1980:8) contended that

> Regardless of the reasons for the decline, it is clear that a continued decline will lead to increased "mediocritization" of society, with potentially serious consequences for leadership and productivity.

The decline in test scores and the acceptance of students with lower admissions scores could lead to increased "mediocritization" of education in general and at Dowling College in particular and could have serious consequences

for Dowling's future. Haro (1978:14) stated that quantitative criteria - grade point averages and test scores - provide students who resemble the faculty in ethnicity, social background and motivations. Some in education may see this as a positive thing while others may not.

One study revealed that the proportion of students scoring above a critical score (defined as the score corresponding to the 85th percentile in the year 1974-75) has declined since the late 1960's for the Graduate Record Examination (GRE) and the Graduate Management Admissions Test (GMAT). The reverse trend is found for the Law School Admissions Test (LSAT), however (Goldman, 1980:10). Goldman (1980:4) felt that

> Performance on these tests may be based upon student motivation since "law and the technological fields have always been viewed as having a higher payoff.

If this is true, it would appear that scores on the Graduate Management Admission Test should also be high since management is often viewed as having a high payoff. One indication of this might be in the number of Master of Business Administration degrees awarded. In the 1968-69 academic year, 18,300 Master of Business Administration degrees were awarded nationwide while in the 1978-79 academic year, the number rose to 47,000 (Garet, 1982:3). In 1981, it rose to 56,000 (MBA Guide, 1982:9). By 1982, more than one out of five master's degrees awarded

nationally were MBA's (Stolzenberg, 1985:1). This year a record 71,000 people will receive a diploma with those magic initials (MBA) which they view as a passport to the good life (Byrne, 1986:104).

Other studies have been made by such as Harnischfeger and Wiley, Munday, Swanson, Rogers and Bacon, Lavin, Lyman and Walker. These studies basically examined the decline in graduate admissions test scores. They did not examine the academic success or lack of it after admission to a Master of Business Administration program which is the purpose of this particular study done in conjunction with the Applied Educational Research and Evaluation Seminar conducted by Nova University.

## PROCEDURES

### Problem Statement

There had been an increase in the number of provisionally accepted students in the Dowling Master of Business Administration program. Provisionally accepted students can be accepted after a review of their Graduate Management Admission Test scores and their reported undergraduate cumulative grade point averages provided they have met all other admissions criteria. At the present time, provisionally accepted students must have at least a score of 900 (calculated as the Graduate Management Admission Test score plus 200 times the undergraduate grade point average) although this was not always the

case. Fully matriculated students are those students who have met all the Master of Business Administration program admissions requirements including the numerical requirement of a score of 950 or better.

Previously, the provisional acceptance of students had not been perceived as a serious problem, however, no tracking was ever done to determine the success rate of the provisionally accepted students as measured by a comparison of cumulative grade point averages of each group (matriculated versus provisionally accepted) upon graduation from the program nor has anyone ever compared the dropout rate of matriculated versus provisionally accepted students. Comparing the dropout rate could be a good indicator of the effectiveness of the provisional acceptance device and the admissions criteria. With the increase in provisionally accepted students, concern was expressed that perhaps the overall rate of success might be affected and that some provisionally accepted students might not be able to complete the Master of Business Administration program. Another concern was that the reputation of the program might suffer if the program standards were lowered through this provisional acceptance device. Lower student ratings might induce some instructors, even if subconsciously, in order to satisfy the level of students enrolled, to lower the standards of their instruction and/or examinations which would decrease the rigor of the program.

Research Question

The question that had to be answered was "Is there a significant difference in the rate of success between Master of Business Administration students who were initially matriculated and those who were provisionally accepted and eventually matriculated?" An answer to this question would help determine if provisional acceptance is an effective device in the program admissions procedures. In order to determine this, the records of the graduates had to be reviewed and data collected and analyzed to determine if there was a significant difference between the two groups' cumulative grade point averages upon graduation which could be an indication of possible problems within the program.

The Research Hypothesis

There was a significant difference in the mean grade point average between students in the Master of Business Administration program at Dowling College who were initially matriculated and those who were provisionally accepted and eventually matriculated. It is generally accepted that the rate of success in a Master of Business Administration program is a function of higher scores on the Graduate Management Admission Test and/or undergraduate success as measured by the students' cumulative grade point averages and undergraduate records. It was this hypothesis that was tested in this study.

Hypothesis

1. Null hypothesis ($H_o$):

   There was no significant difference in the final means of grade point averages between students in the Master of Business Administration program at Dowling College who were initially matriculated and those who were provisionally accepted and eventually matriculated.

   $$H_o : x_1 = x_2$$

2. Alternative hypothesis ($H_a$):

   $$H_a : x_1 \neq x_2$$

3. Level of significance:

   .05

4. Degrees of freedom:

   $$df = (n_1 + n_2) - 2$$

5. Critical t-value

   By referring to a table of critical t-values, a critical t-value was found for the proper degrees of freedom at a .05 level of significance. If the calculated value of t equaled or exceeded the critical value of t, the null hypothesis, $H_o$, would be rejected and the alternative hypothesis, $H_a$ would be accepted.

Population

For the purposes of this study, a decision was made as to whether each student was initially matriculated or was provisionally accepted and eventually matriculated as determined by examining the graduates' files. These two groups then became the population sub-groups for this study. The total number of students who have graduated from the program was only 120, therefore, the total population was used. Eighty-seven were initially matriculated and thirty-three were provisionally accepted and eventually matriculated.

Definition of terms

| | |
|---|---|
| Provisional acceptance | Acceptance into the Dowling Master of Business Administration program with a score less than 950 but over 900, calculated by adding the Graduate Management Admission Test score to 200 times the student's undergraduate cumulative grade point average. |
| Rate of success | This rate was measured by comparing the students' final cumulative grade point averages and the means for each group upon graduation from the Master of Business Administration program. |

| | |
|---|---|
| Student | The typical Dowling Master of Business Administration students attend evenings usually taking two courses per regular semester. Most take courses in the Winter and two Summer sessions. Most are employed full-time and are using the program as a means of advancement in their employment. |
| Grade point averages | Grades of A, B, C, D, or F are awarded with plus and minus designations. The quality points assigned to these letter grades are as follows:<br>A+ = 4.0; A = 4.0; A- = 3.7;<br>B+ = 3.3; B = 3.0; B- = 2.7;<br>C+ = 2.3; C = 2.0; C- = 1.7;<br>D+ = 1.3; D = 1.0; D- = 0.7;<br>F = 0.0. |

Collection of data

In order to perform this study, the files of all students in previously graduated classes of the Master of Business Administration program were examined. The data recorded were the undergraduate cumulative grade point averages and the Graduate Management Admission Test scores of all students as well as their graduate program

cumulative grade point averages upon graduation. Since these graduate grade point averages were not maintained in the files, they had to be calculated for each student using the transcript issued upon graduation.

Data treatment

After determining the initial acceptance status, a listing was made for each group showing the undergraduate cumulative grade point average, the Graduate Management Admission Test score and the final graduate cumulative grade point average of each student. It was the final cumulative grade point averages and the means for each group that were analyzed by comparing the initially matriculated students' averages and mean with those of the provisionally accepted students to determine if there was, as hypothesized, a significant difference in the two groups' success rate.

After listing the information collected for the two groups, the means and standard deviations were calculated. An Independent t-test was utilized to determine if there was a significant difference between the means of the two groups. A desired level of significance of .05 was established and the degrees of freedom calculated. By referring to a table of critical t-values and checking it for the proper degrees of freedom under the pre-selected level of significance, a critical level of t was found. This was compared with the

calculated value of t to determine if there was a significant difference between the means of the two groups. While not part of the major purpose of this study, the applicants' undergraduate grade point averages, Graduate Management Admission Test scores, and total admissions scores were also analyzed using Independent t-tests to determine if there was a significant difference between the cumulative averages, Graduate Management Admission Test scores and the total admissions scores of each group upon admission.

Limitations

This study required the examination of the files of the previously graduated students to determine if there was a significant difference in the rate of success, as measured by the mean grade point average upon graduation, between the two groups. These groups were composed of the initially matriculated students and the provisionally accepted and eventually matriculated students.

This program began in a small way in 1976, and has grown each year since, however it has not grown dramatically and still is a comparatively small program with a small number of graduates each year. This small number placed a limitation on the validity of the results of the study. In addition, it had been stated by some faculty members that there had been only a small number of provisionally accepted students in the past. No records

had been maintained as to initial admissions status so no information regarding the number of initially matriculated students versus provisionally accepted and eventually matriculated students was available prior to the examination of the files.

Indications of the level of acceptance were in many cases not in the students' files and many had to be redetermined by recalculating admissions scores during this phase of the study. This entailed examining the students' transcripts for undergraduate cumulative grade point averages, multiplying these by two hundred and then adding the Graduate Management Admission Test scores which were also in the student files. Those students with scores of 950 or over were initially matriculated; those under 950 were not.

The first major limitation was the small number of graduates from Dowling College's Master of Business Administration program. The second major limitation was the early lack of documentation of provisionally accepted and initially matriculated students in the program. The third major limitation was that the files of the students who had dropped out of the program were, for the most part, not complete, i.e., the undergraduate grade point averages and/or Graduate Management Admission Test scores were missing thus each student's admissions status was not determinable at the time of the examination of the students' files.

Assumptions

One basic assumption was that each member of the graduated classes was relatively equal in intelligence and ability as measured by the undergraduate cumulative grade point average and the Graduate Management Admission Test score which make up the total admission score. This meant that a student with a score of nine hundred and fifty (950) was relatively equal in general intelligence and ability to another student with a score of nine hundred and fifty (950) and that the same was true at all other levels of scores. There was no evidence that this was not the case.

It was further assumed that all files relating to these graduated students were intact as had been promised by the personnel in the Registrar's Office who were responsible for maintaining the student files. Another assumption was that a study and comparison of the two graduated student groups' final grade point averages and the mean for each group would substantiate the hypothesis of this study.

## RESULTS

After listing the undergraduate cumulative grade point averages, the Graduate Management Admission Test scores, and the total admissions score of each student, a decision was made as to which group - initially

matriculated or provisionally accepted and eventually matriculated - each student belonged. A separate list then was made for each group showing the undergraduate grade point averages, the Graduate Management Admission Test scores and the admissions scores for all students. The means and standard deviations were then calculated for each group, i.e. the initially matriculated student group and the provisionally accepted student group. An Independent t-test, as approved by the Nova University National Lecturer, was used to determine if there was a significant difference between the rate of success, as measured by the cumulative grade point averages of the two groups upon graduation from the Master of Business Administration program.

Undergraduate Cumulative Grade Point Averages

The mean score of the undergraduate cumulative grade point average for all students in the program was 2.90 with a standard deviation of .40 in a total population of 120. The mean score of the undergraduate cumulative grade point average for the initially matriculated students was 3.02 with a standard deviation of .37 in a total population of 87. For the provisionally accepted and eventually matriculated students, the mean score was 2.58 with a standard deviation of .28 in a toal population of 33. These data are exhibited in Table 1.

Table 1

Undergraduate Cumulative Grade Point Averages, Means and Standard Deviations

| Students | n | Total Undergraduate Grade Point Average | Mean | Standard Deviation |
|---|---|---|---|---|
| All | 120 | 348.23 | 2.90 | .40 |
| Initially Matriculated | 87 | 263.14 | 3.02 | .37 |
| Provisionally Accepted | 33 | 85.09 | 2.58 | .28 |

In analyzing these scores using an Independent t-test with a significance level of .05 and degrees of freedom of 118, it was found that the calculated t was 7.00. The critical t at this level of significance with these degrees of freedom was 1.96.

Graduate Management Admission Test

The mean score of the Graduate Management Admission Test for all students was 437.5 with a standard deviation of 65. For the initially matriculated group, the mean score was 456 with a standard deviation of 55. The mean score for the provisionally accepted student group was 388 with a standard deviation of 61. These data are exhibited in Table 2

Table 2

Graduate Management Admission Test Scores, Means and Standard Deviations

| Students | n | Total Graduate Management Admission Test Scores | Mean | Standard Deviation |
|---|---|---|---|---|
| All | 120 | 52501 | 437.5 | .65 |
| Initially Matriculated | 87 | 39711 | 456.0 | .55 |
| Provisionally Accepted | 33 | 12790 | 388.0 | .61 |

In analyzing these scores using an Independent t-test with a significance level of .05 and degrees of freedom of 118, it was found that the calculated t was 5.60. The critical value of t at a significance level of .05 and with degrees of freedom of 118 was 1.96.

Total Admissions Scores

The mean score of the total admissions scores for all students was 1018 with a standard deviation of 273. For the initially matriculated student group, the mean was 1062 with a standard deviation of 309. For the provisionally accepted student group the mean was 903 with a standard deviation of 23. These data for the total admissions scores are exhibited in Table 3.

Table 3

Total Admissions Scores, Means and Standard Deviations

| Students | n | Total Admissions Scores | Mean | Standard Deviation |
|---|---|---|---|---|
| All | 120 | 122173 | 1018 | 273 |
| Initially Matriculated | 87 | 92365 | 1062 | 309 |
| Provisionally Accepted | 33 | 29808 | 903 | 23 |

In analyzing these scores using an Independent t-test with a significance level of .05 and degrees of freedom of 118, it was found that the calculated t was 4.76. The critical level of t at this level of significance and with these degrees of freedom was 1.96.

Final Cumulative Grade Point Averages

A mean score of 3.48 with a standard deviation of .28 was calculated for the final cumulative grade point average for all students. The mean score for the initially matriculated student group was 3.53 with a standard deviation of .27. For the provisionally accepted student group, the mean was 3.35 with a standard deviation of .25. These data are exhibited in Table 4.

Table 4

Final Cumulative Grade Point Averages, Means and Standard Deviations

| Students | n | Final Cumulative Grade Point Averages-Total | Mean | Standard Deviation |
|---|---|---|---|---|
| All | 120 | 417.7 | 3.48 | .28 |
| Initially Matriculated | 87 | 307.1 | 3.53 | .27 |
| Provisionally Accepted | 33 | 110.6 | 3.35 | .25 |

In analyzing these cumulative grade point means using an Independent t-test at a significance level of .05 and with degrees of freedom of 118, it was found that the calculated level of t was 3.44. The critical level of t at this level of significance and with these degrees of freedom was 1.96.

Dropout Rate

While there was a statistically significant difference in the rate of success between the initially matriculated and the provisionally accepted students, it was felt that the 3.35 mean score of cumulative grade point averages of the provisionally accepted student group was by most standards not an obviously inferior grade

point average (Losak, 1986:1). This could preclude any recommendation for an increase in the admissions score criteria unless other facts justified such an increase. The key fact that could justify such a recommendation would be if there was a major difference in the dropout rate between the initially matriculated and provisionally accepted student groups.

The initial examination of the students' files disclosed that the files of many students who had dropped out were not complete, i.e., undergraduate grade point averages and/or Graduate Management Admission Test scores were not in the files. As a result, there was initially no way to determine the admissions status thus the number of dropouts in each category. In a recent discussion of the problem with the Vice-President for Academic Affairs, however, it was discovered that the inactive transcript files might be useful in determining the status of each student who had dropped out.

Upon examining the inactive transcripts, it was found that each transcript had space for two dates - one for date admitted to the program and one for date of matriculation. The initially matriculated students had the same date in each space while those who were provisionally accepted had different dates in each space or had no date of matriculation thus indicating provisional acceptance. This information was then used to determine the dropout rate for both groups. By checking

each inactive transcript file, it was discovered that 274 provisionally accepted students had dropped out while only 114 initially matriculated students had dropped out.

## DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

### Discussion

The rate of success, as measured by the final cumulative grade point averages, between the initially matriculated students and the provisionally accepted students was significantly different. By using an Independent t-test at a significance level of .05 and with degrees of freedom of 118, a value of 4.76 was calculated. Since this was significantly higher than the critical value of t of 1.96, the null hypothesis was rejected and the alternative hypothesis was accepted. The null hypothesis stated that there was no significant difference between the rates of success of initially matriculated students and provisionally accepted students in the Master of Business Administration program at Dowling College. The alternative hypothesis stated that there was a significant difference between the two rates of success. It was necessary to determine if a significant difference did exist and to examine the implications for Dowling thus this study was undertaken. It was hoped that the results of this study would be clear enough so that appropriate measures could be recommended to protect the program if necessary. The results were not clear enough, however.

Since the results were not clear enough to make concrete recommendations regarding admissions procedures, it was necessary to examine the dropout rate and determine if there was a difference in this rate between the matriculated and provisionally accepted student groups. The provisionally accepted students who had dropped out numbered 274 as compared with 33 who had graduated whereas the initially matriculated students who had dropped out only numbered 114 compared to 87 who had graduated. This comparison helped to justify the recommendation made relating to the entrance score criterion.

Implications

Since the alternative hypothesis, that there was a significant difference between the two groups' final grade point averages, was accepted the implication was that future problems could exist in the Master of Business Administration program at Dowling College. Standards could be lowered in the classroom, even if subconsciously, to meet the lower educational and/or intelligence levels of these provisionally accepted students.

This would be unfair to the initially matriculated students who have met all the admissions criteria and expect a rigorous program to prepare them for leadership roles in the business world. It may even be unfair to some of those who are admitted provisionally since they may be led to believe that they are capable of

completing the Master of Business Administration program successfully and that may not be the case for all students. It would appear that the higher dropout rate for provisionally accepted students - 274 versus 114 for matriculated students - justifies this statement about the ability of some provisionally accepted students to complete the program. It would appear that the admissions criteria were too low and/or that the criteria were not adhered to. Since some of those who graduated had scores less than 900, it is obvious that the criteria were not adhered to. While not possible to check due to the incomplete files, it would be reasonable to assume that some of the students who dropped out also had scores less than 900. As for the criteria being too low, this is a matter that must be considered by the administration and faculty in light of the results of this study.

The continuation of this practice of admitting provisionally accepted students, unless very carefully monitored by the faculty Admissions Committee, could be detrimental to Dowling College. The College could be looked upon as a school of last resort where any student is accepted regardless of undergraduate grades and Graduate Management Admission Test scores. This could mean the loss of the better (educationally speaking) students. The possible downward spiral of quality could be continuous until the program would be so watered down as to be ineffective.

Not only would the students of Master of Business Administration programs suffer but their employers in many cases would also suffer. These employers, who in many cases pay their for their employees' graduate education through tuition reimbursement programs, would not receive the satisfactory or adequate return on their investment to which they are entitled. The lack of an adequate return on their investment could cause some to cease subsidizing students. This in turn could be detrimental to Dowling College and to other colleges and universities with Master of Business Administration programs. The general good reputation of these masters programs as providers of successful business leaders could also be tarnished.

It is the duty of all college and university graduate business school personnel and all concerned to maintain this Master of Business Administration degree program not only for their own college's or university's sake but for the sake of higher education in general. If the degree loses its luster, many would suffer as many employers would no longer see value in paying higher salaries based upon an individual's having attained the Master of Business Administration degree. Each college and university business school administration and faculty owes it to their students, to higher education, to the business community and to society in general to maintain the high quality generally associated with Master of Business Administration programs.

Recommendations

There were a number of recommendations forthcoming from this study. Some have already been acted upon and are continuous process recommendations such as improving the process of maintenance and retention of files of those who drop out of the program. The results of this study should set the foundation upon which the future admissions procedures will be based. The results have already brought about some change and change was needed.

One recommendation was that the admissions criteria, and possibly the admissions score criterion, not only be more stringent but they be most carefully adhered to. The Master of Business Administration Admissions Committee, consisting of Business faculty, should examine the admissions scores and the meeting of other admissions criteria by applicants more carefully to determine the probability of successful program completion based upon the results of this study.

Another recommendation was that the faculty and the administration engage in a discussion regarding the advisability of keeping the cutoff score for provisionally accepted students at 900 in light of the results of this study. Previously, as discovered in this study, students with scores as low as 830 were admitted to the program. No evidence of extraordinary ability or competence of

these students was found in their files to justify the exceptions made to the college admissions policy. Of the students who graduated there were 14 students with scores less than 900. Their mean grade point average was 3.35, the same as the mean grade point average for the provisonally accepted group. Some may argue that this cutoff score of 900 is an arbitrary one (as is the 950 for determining matriculation), and that is true even though it is a generally accepted one at many colleges and universities but this study proved that there was a statistically significant difference in the outcomes of the two groups. There was also a big difference in the dropout rate between the two groups (274 provisionally accepted students dropped out versus 114 matriculated students). These differences justify the recommendation that the admissions criteria be reexamined by the administration and faculty of Dowling College.

While it was not originally possible to gather the dropout information on former students due to inadequate file maintenance, a later study of the transcript files was made to determine the dropout rate of provisionally accepted students versus initially matriculated students. Since there was a big difference in the dropout rate between the two student groups, a study of possible retention procedures was recommended. The best procedures to improved retention should be implemented as quickly as possible.

The Master of Business Administration Admissions Committee must maintain control over the admissions process. It has been found that Admissions Department personnel at times had assumed the responsibility for determining admission to the program contrary to faculty and College policy. The standards and goals of the Admissions Department personnel may be in conflict with the faculty's standards and goals. This should not be allowed.

It was recommended that a study replicating this one should be undertaken in the future using the latest graduated classes. If the same results are obtained showing that the trend of significantly lower scores for provisionally accepted students continued, further recommendations may be needed or at least the above findings and recommendations will be substantiated.

An important recommendation was that a study should be made and discussions undertaken regarding the feasibility of eliminating the Graduate Management Admission Test score as a criterion for admissions. Emphasis could be placed more on the undergraduate cumulative grade point average, the undergraduate experience and/or the work experience of the applicant.

Another recommendation was that improper admissions decisions must not be made based upon the need and/or desire to make the program grow and be financially rewarding. The program must be made more educationally

rewarding to those who are students in it. These rewards for students are the end result of the whole process which begins with admission to the program based upon sound decisions after a careful review of each applicant's file. Only those students who stand a reasonable chance of success based upon the results of this study and the good judgment of the members of the Admissions Committee should be admitted. This is probably the most important recommendation that could be made.

The Master of Business Administration program is an important one to Dowling - important as far as prestige is concerned and important financially. It was highly recommended that the program's quality be maintained and upgraded as quickly as possible. This is the minimum that is owed to the students, the College, the business community and society at large. The high quality of graduate and undergraduate education at Dowling College must be maintained.

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